"Management of E-Resources and Users Perception towards its Usage in University Knowledge Resource Centres of Maharashtra"

Synopsis submitted to

Swami Ramanand Teerth Marathwada University, Nanded

For the degree of

DOCTOR OF PHILOSOPHY

In the subject of Library & Information Science
Under the faculty of Interdisciplinary Studies.

Submitted by

Ms. Prachee Vijay Waray

M.Lib & I.Sc, SET & NET

Under the guidance of

Dr. Aparna Deshpande

Librarian

B. Raghunath, Arts, Commerce & Science, College,

Parbhani.

Title: Management of E-resources and Users Perception towards its Usage in University Knowledge Resource Centres of Maharashtra.

1. Introduction:

In the 21st century, the emergence and advancements in ICT have brought psychological, sociological and technological changes in the field of education. It is the most significant factor affecting the scholarly communication.

Today Information technology (IT) has been playing pivotal role in information creation, acquisition, storing, dissemination as and when required by the users. Information and Communication Technology (ICT)has paved its way in different sectors. Libraries are also not untouched with the impact of these drastic changes brought by ICT in the present information Society.

The extensive use of information and communication technology(ICT) ,particularly the Internet and Web has brought major changes in the way the information is generated, stored and accessed, as well as publishing and distribution of information resources in digital format has become familiar(Ahmed,2013).In other words, print medium is giving way to electronic form of materials(Sharma, 2009).

Libraries are also coping with the various challenges to keep themselves in the mainstream. As libraries are the reservoir of

information resources and are well known for providing desired information in due time. So they are also shifting from print collection to digital collection. Though Print collection has their own advantages, but the need of day is to acquire electronic resources too.

Libraries have witnessed a great metamorphosis in recent years both in their collection development and in their service structure (Thanuskodi, 2012). Information and communication has transformed libraries in to digital libraries, where books, journals and magazines have changed into e-resources. This has increased the scholarly communication and provided users with new tools and applications for information seeking and retrieval (Ani ,2008).

1.1 E-Resources

According to Library and Information Technology Glossary the term e- resources "used to describe all of the information products that a library provides through a computer network".

E-resources are the electronic representation of information which can be accessed via electronic system and computer network (IFLA , 2012). They are available in various forms such as e-books, e-journals, digital libraries, CD/DVD-ROMS, Online databases , online tutorials, repositories and other e-formats. The most remarkable benefit of e-resources is that they are more up-to date and support the patrons information needs irrespective of time and geographical barriers.

In other words, an e-resource is an electronic information resource that you can access on the web, on or off the campus. It includes both online and electronic data in physical format. The use of electronic resources in libraries began with the development of the machine readable cataloguing (MARC) format in 1960's. Then databases were made available on CD-ROM. After the advent of Internet and World Wide

Web (WWW) in 1990, Libraries started offering web based catalogues, bibliographic and full- text databases, electronic journals through the web. This has changed the requirement of the users as they no longer had to go to the library as they started getting information 24 x7 at their place. All these technological developments have brought significant changes in the collection development and information dissemination. Information is now available widely and cheaply and some of the information is even free. Now a days the electronics resources are found in varied formats like e-books, e-journals, e-newspaper, e-magazines digital libraries, e-learning tutors, Indexing & abstracting databases, reference database, Image collection, Multimedia products, e-archives, e-patents and so on.

Libraries are acquiring the e-resources to provide better services to the user community. The major features of e- resources are:

1. It can be accessed at a time by multiple users.
2. It can be searched quickly.
3. It can be stored in huge amount in comparison to print media.
4. It can be made available 24 x 7.
5. It can be available in any file format like text, audio, video and images.

Libraries utilize these e-resources to enhance their services, like

1. Current Awareness Service
2. Selective Dissemination of Information
3. E-document Delivery services
4. Online Public Access Catalogue (OPAC)
5. Mobile Libraries

Even though the e-resources are readily available to the users but they are still underutilized. The basic reasons behind that, are lack of

awareness and skills regarding use of e-resources. Here the library professionals play vital role by making users aware about the various e-resources, how to search and locate the desired e-resources and how to access and retrieve them.

1.2 Types of E-resources

Electronic resources can be broadly divided into two types a) Online and b) offline electronic resources.

a) Online electronic Resources: These are the resources which can be accessed using an electronic system and Internet connection. The online e- resources are

- E-journals
- E-books
- Full text databases
- Bibliographic databases
- Websites and Portals
- E-Newspapers
- E-Magazines
- E-Thesis and Dissertations

b) offline Electronic Resources: These are the resources which require only electronic devices. It includes:

- CD/DVD ROMs
- Offline Databases
- Magnetic Tapes
- Floppy
- Pen drives & Hard Disk

1.3 Problems in Using E-Resources and Role of Librarian

The role of librarian has undergone a drastic change, from providers of documents to facilitators of information. The procurement of e-resources in the libraries proved as a boon in reducing administrative work, saving space and accessibility time. As most of the academic libraries have their own web OPAC, digital library and Institutional repositories. So from the user's point of view they can access the library resources 24x7 directly without coming to the library.

On the other hand acquiring and maintaining the details of e-resources is very challenging for the libraries because of increased subscription to titles and databases. Here the Electronic Resource Management system helps the libraries to keep the records of e-resources such as, selection and acquisition of e-resources, licensing, pricing and access rights.

1.4 Electronic Resource Management

The adoption of e-resources has brought huge changes in the library services. Users can easily retrieve their required information within a short period of time. But on the other hand libraries are facing number of challenges due to continuously increasing cost of e-resources, stagnant library budgets, emergence of new formats and increased emphasis on accession ownership (Nissonger,2004).

Now a days, many publishers offer packages that include many e-journals, some other packages may include electronic journals from many publishers(aggregators). Libraries also subscribe e-journals directly from the publishers.

Today, libraries are getting access to a number of electronic resources through the various consortia eg. UGC’s E-shodhsindhu Consortium, NKRC by CSIR, CERA by (ICAR), DRDO Consortium by (MOD) etc. Now a days, most of the University libraries an research

institutions subscribe to thousands of international e-journals through some consortia. The e-journals, e-books, full text databases, and indexing and abstracting databases has grown rapidly.

Though e-resources are very easy to use and play a significant role in research, but there management is troublesome for libraries. They are difficult to catalogue, manage and administer. According to (Mitchell and Suratt, 2005). Management of e-resources often refer to the tools and processes used to organize, administer metadata, such as license terms, vendor contracts and usage statistics.

The life cycle of e-resources management is very complicated. Librarians find it difficult to manage these e-resources. Electronic Resource Management (ERM) covers practices and techniques involved in the investigation, selection, acquisition, licencing, access, maintenance, evaluation and preservation of e-resources of a library.

Traditional library management system were designed for managing print resources and are not well suited for managing electronic resources.

For managing print resources one does not need any licence

Or access information while for e-resources these are mandatory.

The Digital Library Federation (DLF) has been engaged in giving solutions for e-resource management. In 2001 Tim Jewell of University of Washington carried out a survey to show that how libraries are trying to maintain information about e-resources. Later in 2002, DLF and NISO conducted a workshop for the development of ERM systems. As a result DLF ERM was established. The objective of this initiative was to provide specifications of functional requirements. a workflow diagram.

As the number of methods for accessing e-resources have increased the management of these resources has become more complex. Prior to ERM system, electronic resources (ER) were managed in a variety of formats. In

house databases, spreadsheets, emails and paper files were used to store subscription details, vendor's information, passwords and license agreements.

In most of the situations , very few library staff members had access to that data. The information related to e-resources like content, cost, coverage, subscription period, usage statistics, pricing terms, usage restrictions and rights should be accessible to the respective section or staff members such as acquisition section, cataloguing section, bibliographic and decision makers.

1.5 **Benefits of Implementing ERMs**

According to Ballard and Lange (2007).

1. It forces the establishment of an e-resource workflow from selection to troubleshooting access problems.
2. An ERM system centralizes the storage and distribution of e-resources information but decentralize its management.
3. ERM system are less complex and easier to use than the typical ILS.
4. ERM systems gives opportunity to remove discrepancies in the library catalogue and bibliographic data.
5. Implementing an ERMs provide opportunity for staff to learn new technologies.
6. Implementing an e-resource management system allows the controlled provisional subscription information to non library staff.
7. Implementation of ERM system can improve and streamline a library's selection, evaluation, acquisition maintenance of e-resources.

   Some of the most popular commercial and open source electronic Resource Management Systems are as follows:

   a) Commercial ERMs

   - Millenium ERM System by Innovative Interface
   - ERM Solution by Sirsidynix

- Meridian by Endeavor
- Verde by Ex Libris
- ERM essentials by EBSCO
- 360 Resource Manager by Proquest
- ERMSS by Total IT Soluions

b) Open source ERMs

- CORAL by University of Notre Dame
- CUFTS by Simon Frase University
- ERMes by University of Wisconsin

Many Library Automation software developers combined all the functionality of Library software and ERM together and given next generation library service platforms. Some of them are as follows:

- OCLC WorldShare Platform
- Ex Libris Alma
- Serial Solutions Intota
- Kuali OLE
- Innovative Interface Sierra

Therefore, the researcher has selected this topic to study the various e-resources and analyse the utility and effectiveness of the information services provided by various State University libraries of Maharashtra**. There** are 17 State Universities in State of Maharashtra as per UGC. The researcher has selected all the state universities except the 04 agriculture Universities. All the Universities are well established. Researcher has selected these universities to get the best overview of the status and usage of e-resources by the users.

The Universities taken for the study are

1.	Dr. Babasaheb Ambedkar Marathwada University, Aurangabad-431 004.	1958
2.	Dr. Babasaheb Ambedkar Technological University, Lonere-402 103	1992
3.	Kavi Kulguru Kalidas Sanskrit Vishwavidyalaya, Ramtek, Maharashtra.	1999
4.	Mumbai University, Mumbai-400 032.	1857
5.	Kavayitri Bahinabai Chaudhari North Maharashtra University, Jalgaon	1991
6.	Savitribai Phule Pune University, Pune-411 007.	1949
7	Sant Gadge Baba Amravati University, Amravati-444 602.	
8.	Shivaji University, Kolhapur-416 004.	1962
9.	Smt. Nathibai Damodar Thackersey Women's University, Mumbai-400 020.	1951
10.	Punyashlok Ahilyabai Holkar Solapur University, Solapur Pune Road, Kegaon, Solapur-413 255.	2004
11.	Swami Ramanand Teerth Marathwada University, Nanded-431 606.	1995
12.	Yashwant Rao Chavan Maharashtra Open University, Nashik-422 222	1990
13.	The Rashtrasant Tukadoji Maharaj Nagpur, University, Nagpur-440 001 (M.S).	1923

All the selected universities are engaged in providing higher education.

2. Need of The Study

The researcher strongly believes that e-resources play vital role in Knowledge Processes i.e. from creation to utilization of the knowledge specifically in the Research Centres.

The University Departments and Research Centres are the places where students, Research scholars , faculties are continuously engaged in the research activities. A new knowledge is created, it is acquired, stored, disseminated and utilized by the other for further research.

All the researchers and faculty members of research institutes almost use these e-resources in addition to the print literature for their studies.

The researcher of the present study needs to judge the use of e-resources provided by the various university libraries. The University Departments and their research centres are engaged in providing research facilities in different subjects. So the study revolves around how students, research scholars and faculties are using these e-resources, do they face any problem, how they access, how do they retrieve the information, do they find the library services up to the mark and the role of librarians is the basic idea behind this study.

3. Review of Literature:

The work is an attempt to carry out a comparative study on the use of e-resources among the research scholars and faculties of selected University KRC in terms of collection, facilities and services including networking related services provided to the users.

To Conduct the research the researcher has gone through the various research work carried out previously on this problem to gain the background knowledge of the research topic, to identify the various concepts related to it, to identify the research methodology used and to develop an appropriate research design. So many studies have been carried out both at national and international level.

At International Level

Dadsize, P.S(2005) provided an overview of e-resources usage at Asheshi University. The study says that e-resources are valuable research tools that complement the print –based resources in a traditional library setup.

Alison & Kiyingi (2012), conducted a study to identify the various factors affecting the utilization of electronic health information resources in University of Uganda. They found that there were limited number of e-resources, slow Internet connection , low bandwidth in addition to poor searching skills among students and faculties.

Millawithanchhi, U.S (2012) carried a study to find the usage of e-resources by PG students at University of Columbo. The study identify the critical success factors of the usage of e-resources by the PG students. Out of the nine factors , Six factors found successful in this regard and they are Technology, Library Support, information Literacy, computer competency, usefulness and user attitude.

At National Level

Vashishtha ,S (2007) had studied the libraries of higher technical education institutes with special reference to deemed universities of North India. The aim of the study was to know the various facilities, services provided by the Library in terms of print and non-print resources, budget and library staff .

Deshpande, N and Pathak, S (2008) has reviewed and highlighted the information needs of the users of astronomy and Astrophysics Libraries and information centers in India. According to them the use of e-resources has increased and has brought changes in the practice of science.

Kaur,B and Verma, R(2009) conducted a study on "Use of Electronic Information Resources : A Case Study of Thapar University". They found that printed journals are rapidly being replaced by e-journals. The use of E-journals has increased in comparison to print journals.

Satapathy,S and Rout, B(2010) conducted a study on the use of E-resources by the faculty members of CVRCE, Bhuvaneshwar. It was concluded that the

faculty members are aware about various e-resources.They suggested more e-resources should be subscribed by the central library , in addition high Internet speed.

Ahmed ,SMZ(2013), Conducted a study on the use of e-resources by the faculty members in diverse public universities in Bangladesh. The purpose of the study was to describe the pattern of e-resources use and satisfaction with university paid resources by the faculty members. The study concluded that faculty members are though aware about the e-resources but are not satisfied with current level of e-resources subscribed by the university. There were limited number of titles, face difficulty in finding the resources and slow internet speed were the reasons of limited access to e-resources.

Bavakutty, M and Majeed, K.C(2013) did a survey on use of e-resources in Universites with special reference to Kannur University, Kerala. The study was conducted to know about the priority and use of e-resources for academic purposes. It was found that faculties and research scholars were well aware of the e-resources, but at the same time feels that the facilities provided are inadequate to cater there needs of information.

According to Bhat,I and Mudhol,M(2014) 2-3 hours of access to internet is quite common among the gastroenterology and general medicine faculties and students. They suggested that library should organize an orientation programme at regular intervals so that maximum users can access the e-resources more proficiently for their studies.

A study by Tamrakar,A and Garg, R(2016) was conducted to find out the user perception towards e-resources and services of IIT Guwahati Library. The study was carried out measure the extent of use of e-resources, information alert services, awareness toward e-resources and purpose of using e-resources. It was concluded that that the e-services provided by the library are effective and users are satisfied with the e-services.

Kumar, R (2016), conducted a study on the use of e-resources by the medical students of MM University, Ambala. It was concluded that students found E-resources more informative and useful. All the UG students use E-resources more often than PG students.

4. Objectives:

The researcher has selected the **users of 13 University Knowledge Resource Centres in Maharashtra for the study**. The objectives of the study are as follows:

3.1 To assess the awareness and use of e-resources among the users of Universities Knowledge Resource Centre in Maharashtra.

3.2 To study the frequency and purpose behind the usage of e-resources among the users.

3.3 To find how Library Professionals satisfy the needs of the user.

3.4 To determine the impact of e-resources and services on the research work of users.

3.5 To identify the problems faced by the users.

3.6 To determine the level of satisfaction among the users for available e-resources.

3.7 To find out the strategies implemented by the KRC's in management of e-resources.

3.8 To identify the challenges faced by librarians in the management of e-resources.

3.9 To suggest measures for improving the existing library system and services.

5. Scope:

The scope of the study taken for research is the PG Students, research scholars and faculty members in the selected universities of Maharashtra. the researchers has selected 13 well established Universities of Maharashtra.

6. Hypothesis:

5.1 The users utilize the e-resources optimally.

5.2 The available e-resources in the University Knowledge resource Centres (KRC) fulfil the needs of Users.

5.3 Library Professionals in the University KRC are competent to satisfy the information needs of Users.

5.4 The usage of e-resources has improved the research efficiency of the users.

5.5 Some users face problems in retrieving the desired information .

5.6 Users are satisfied with the available e-resources.

5.6 There is no significant difference in the strategies employed by KRC in Managing e-resources.

5.8 There is no significant difference in the challenges faced by librarians in managing E-resources.

Research Methodology

Keeping in view the objectives of the study, the researcher has chosen the survey method of research to collect the data from the PG students, research scholars, faculties and Librarians studying and working in the selected Universities. For this study the researcher will use random sampling method for data collection. An appropriate customized structured

questionnaire tool will be designed to collect the data both personally or via online survey methods from PG students, research Scholars, faculties, and Library Professionals. The researcher will visit the respective departments personally in order to obtain the additional information through observation and informal discussions. The Librarians of the Universities will be interviewed. The questionnaire with both open-ended and close ended questions will be used to collect the relevant data regarding types of e-resources acquired by the library, use pattern of the e-resources by the students, research Scholars and faculties and the role of LIS professionals respectively. Then the data collected will be analysed statistically.

7. Significance of the study

The growing number of e-resources in different disciplines and its proper utilization is the major concern. As the users have access to huge number of e-resources, so the question arises whether they are able to retrieve the desired information?, Do they find any difficulty while retrieving?, Are the e-resources subscribed by the libraries sufficient for their studies and research ?, Are they satisfied with the services of library? Therefore it is strongly required to identify these aspects in the Universities where research scholars and faculties are engaged research activities. Their usage pattern should be studied so that if it needs any improvisation then it can be designed in that fashion that will be more useful to them.

Conspectus:

Chapter 1: **Introduction**

This chapter will introduce the problem of study. It will give an idea about the title of the study, the objectives , Scope , hypothesis of the study, the research methodology used for the study.

Chapter 2: Review of Literature

This chapter will be concerned with the past studies conducted in this area of study and other related areas . The studies carried out in this area will be identified and reviewed.

Chapter 3. E-resources and their management

This chapter will give the overview of E-resources, its types ,advantages, disadvantages. This chapter will discuss in detail about the management of e-resources.

Chapter 4: Analysis and Interpretation of Data

This chapter provides the analysis report of the data collected from the respondents from different Universities in Maharashtra.

Chapter 5: Findings, Suggestions and conclusions

This chapter will provide the findings of the study. Suggestions and conclusions, drawn from the analysis report, are also included

References:

1. Ahmed, S.M.Z (2013). Use of electronic resources by the faculty members in diverse public universities in Bangladesh. *The Electronic Library,Vol.31 No.3,pp.290-312.*
2. Alison, Kineyere and Kiyingi, Gorge William and Bazirakke, Bernad. "Factor Affecting Utilization Of Electronic Health Information Resources In University Of Uganda." *Annals Of Library Information Science* (2012): 90-96.
3. Bhat, I and Mudhol,M (2014). Use of e-resources by faculty members and students of sher-E-Kashmir institute of medical science, *DESIDOC Journal of Library and Information Technology. Vol.34,no.1, pp.28-34.*

4. Dadzie,P.S (2005). Electronic resources : Access and usage at Ashesi University College. *Campus-wide Information Systems*. *Vol .22,no.5,pp.290-297*. Available at http://www.emraldsight.com
5. Deshpande ,N and Pathak, S(2008). Use of electronic journals in astronomy and astrophysics libraries and information centres in India: A user's perspective. *The International Information and Library Review,vol.34,no.3,pp.153-164*.
6. Garg, Ram and Tarakar, Amit(2014). Utilization of electronic-resources by the postgraduate students, research scholars and faculty members of Indian Institute of Technology, Kharagpur. *Journal of Scientometric Research, Vol.3, no.2,pp.75-81. Availabele at: www.jscires.org/10.4103/2320-0057.145621*.
7. Kaur,B and Verma,R(2009). Use of electronic information resources: A case study of Thapar University. *DESIDOC Journal of Library and Information Technology, vol.29,no.2,pp.67-73.*
8. Millawithanchhi, U.S. "Electronic Resources Usage by Postgraduates Students at University of Colombo: Identifying The Critical Success Factors." *annals of library and information science* (2012): 53-63.
9. Najee, M and Bavakutty, M(2013). Use of e-resources in universities : A study with special reference to Kannur University,Kerala. *J.K.Vijaykumar and P.Pichappan(eds.), Rejuvenated Libraries for Empowered Users :© Digital Information Research Ltd,London,2013. Available at:https://www.academia.edu/121199422/*
10. Saptapathy, Sunil and Rout, Biswanath (2010). Use of e-resources by the faculty of members with special reference to CVRCE, Bhubaneswar. *DESIDOC Journal of Library and Information Technology,Vol.30,no.4,pp.11-16.*

11. Vasistha, Seema(2007). Status of libraries in higher technical education institutions with special reference to deemed universities of North India. *Annals of library and Information Studies,vol.54.pp.95-102*.

Researcher
Prachee Waray
M.Lib & I.Sc. SET & NET

Research Supervisor
Dr. Aparna Deshpande
Librarian
B.Raghunath College,Parbhani